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SIGNIFICANCE OF BIOMARKERS IN METABOLIC SYNDROME

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Abstract: In recent years, about 4,000 articles have been published on the various causes of metabolic syndrome. This syndrome occurs in 18-24% of adults (30-69 years old), 44-48% among people over 70 years old, and 8-9% of people aged 20-30. 75% among the population, type 2 diabetes and arterial hypertension -63%. Among children and adolescents with obesity disease, it increases sharply and amounts to 28-55%. With the global increase in obesity, MS has become a major public health problem worldwide. In other words, currently more than 1 billion people in the world suffer from MS, and the prevalence of this pathology is constantly increasing. The presence of MS in the elderly is often associated with dyslipidemia. A number of studies have shown that approximately 10-30% of obese people do not have symptoms of metabolic syndrome and are considered metabolically healthy.

Keywords: metabolic syndrome, biomarkes, dyslipidemia, hypertension.

Reduction of LXR expression in rats increases thyroid hormone secretion. In addition, reduction of perinatal deiodinase 2 in hepatocytes reduces susceptibility to the development of steatosis and obesity induced by a high-fat diet. Investigating the biomarker role of thyroid hormones may be a fruitful area of research. Despite the identification of many biomarkers and endogenous metabolites of MS, little literature has been published to date on their identification using metabolomics and lipidomics. The study of MS mechanisms is mainly related to the advances in metabolic phenotyping, so metabolomics may be the strategy of choice for the in-depth study of MS and its components.

Result

In conclusion, it should be said that the dynamics of the approach to the main criteria of the metabolic syndrome and the analysis of the course of the process have not been radically changed in the decades since. But the pathogenetic mechanisms of metabolic syndrome symptoms and accompanying conditions have been studied in more detail. The main symptoms of metabolic syndrome are obesity, carbohydrate metabolism disorder, arterial hypertension, and insulin resistance. The results of the study show that hyperhomocysteinemia is the cause of many pathological changes in the body, which leads to increased thrombus formation and the development of endothelial dysfunction.

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